P1U/S2/US (US) Approved for use through 04/30/2003. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to **UTILITY** PATENT APPLICATION

TRANSMITTAL (Only for new nonprovisional applications under 37 CFR § 1.53(b))

Attorney Docket No. First Inventor		1857.1860000				
		Pradeep K. Govil				
Title Deformable Mirror Using Piezoelectric Actuators Fo as an Integrated Circuit and Method of Use						

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Commissioner for Patents Mail Stop Patent Application P.O. Box 1450 Alexandria VA 22313-1450							
 Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original, and a duplicate for fee processing) Applicant claims small entity status. See 37 CFR 1.27. Specification [Total Pages 15] (preferred arrangement set forth below) - Descriptive title of the Invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix 	 CD-ROM or CD-R in duplicate, large table or Computer Progr (Appendix) Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) Computer Readable Form (CRF) Specification Sequence Listing on: CD-ROM or CD-R (2 copies); or paper Statements verifying identity of above copies 							
- Background of the Invention - Brief Summary of the Invention	ACCOMPANYING APPLICATION PARTS							
- Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. \times Drawing(s) (35 U.S.C. 113) [Total Sheets 3]	9. Assignment Papers (cover sheet & document(s)) 10. □ 37 CFR 3.73(b) Statement □ Power of Attorney							
5. Oath or Declaration (Total Pages 2)	(when there is an assignee) 11. English Translation Document (if applicable)							
a. Newly executed (original or copy)	12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations							
b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed)	13. Preliminary Amendment							
i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).	14. Two Return Receipt Postcards (MPEP 503) (Should be specifically itemized) 15. Certified Copy of Priority Document(s)							
6. ★ Application Data Sheet. See 37 CFR 1.76.	Certified Copy of Priority Document(s) (if foreign priority is claimed) Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach							
	form PTO/SB/35 or its equivalent.							
	17. Other: Authorization under 37 C.F.R. § 1.136(a)(3) Other: The name of the assignee is: ASML Holding N.V.							
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-Part (CIP) of prior application No: / Group/Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.								
19. CORRESPONDENCE ADDRESS								
Customer Number 26111	or Correspondence address below							
NAME STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.								
Attorneys at Law								
ADDRESS	din cons							
CITY STATE	ZIP CODE							
COUNTRY TELEPHONE	FAX							
NAME (Print/Type) Jason D. Eisenberg ()	Registration No. (Attorney/Agent) 43,447							
SIGNATURE RAN (CC)	Date 4 30 0 3							



Robert Greene Sterne Edward J. Kessler Jorge A. Goldstein David K.S. Cornwell Robert W. Esmand Robert W. Esmond Tracy-Gene G. Durkin Michele A. Cimbala Michael B. Ray Robert E. Sokohl Eric K. Steffe Michael Q. Lee Steven R. Ludwig Lawrence B. Bugaisky Donald J. Featherston Michael V. Messinger

Judith U. Kim Timothy J. Shea, Jr Patrick E. Garrett Heidi L. Kraus Heidi L. Kraus Edward W. Yee Albert L. Ferro* Donald R. Banowit Peter A. Jackman Molly A. McCall Teresa U. Medler Jeffrey S. Weaver Kendrick P. Patterson Vincent L. Capuano Albert J. Fasulo II* Eldora Ellison Floyd Thomas C. Fiala

Kimberly N. Reddick Theodore A. Wood Elizabeth J. Haanes Bruce E. Chalker Joseph S. Ostroff Frank R. Cottingham Hank R. Cottingnam Christine M. Lhulier Rae Lynn Prengaman Jane Shershenovich* Lawrence J. Carroll* George S. Bardmesser Daniel A. Klein* Rodney G. Maze Jason D. Eisenberg Michael A. Specht Andrea J. Kamage Jon E. Wright

LuAnne M. Yuricek*

Registered Patent Agents •
Karen R. Markowicz Karen R. Markowicz Nancy J. Leith Ann E. Summerfield Helene C. Carlson Gaby L. Longsworth Matthew J. Dowd Matthew J. Dowd Aaron L. Schwartz Angelique G. Uy Mary B. Tung Katrina Y. Pei Bryan L. Skelton Robert A. Schwartzman John J. Figueroa

Teresa A. Coleila

<u>Of Counsel</u> Kenneth C. Bass III Lisa A. Dunner Evan R. Smith

*Admitted only in Maryland *Admitted only in Virginia •Practice Limited to

July 30, 2003

WRITER'S DIRECT NUMBER: (202) 772-8645 INTERNET ADDRESS: JASONE@SKGF.COM

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Mail Stop Patent Application

Re:

U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)

Appl. No. To be assigned; Filed: Herewith on July 30, 2003

Deformable Mirror Using Piezoelectric Actuators Formed as an For:

Integrated Circuit and Method of Use

Inventor(s):

Pradeep K. Govil et al.

Our Ref:

1857.1860000

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office:

- PTO Fee Transmittal (Form PTO/SB/17); 1.
- 2. Form PTO-2038 Credit Card Payment Form;
- 3. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
- Authorization to Treat a Reply as Incorporating an Extension of Time under 4. 37 C.F.R. § 1.136(a)(3);
- Recordation Form Cover Sheet; 5.
- 6. An original executed Assignment to ASML Holding N.V., recordation of which is hereby respectfully requested;
- 7. U.S. Utility Patent Application entitled:

Deformable Mirror Using Piezoelectric Actuators Formed as an Integrated Circuit and Method of Use

Sterne, Kessler, Goldstein & Fox PLLC: 1100 New York Avenue, NW: Washington, DC 20005: 202.371.2600 f 202.371.2540: www.skqf.com



Commissioner for Patents July 30, 2003 Page 2

and naming as inventors:

Pradeep K. Govil Andrew Guzman

the application consisting of:

- a. An Application Data Sheet (37 C.F.R. § 1.76);
- b. A facsimile copy of an original executed Declaration;
- c. A specification containing:
 - i. 9 pages of description prior to the claims;
 - ii. 5 pages of claims (27 claims, 3 independent);
 - iii. a one (1) page abstract;
- d. 3 sheet(s) of drawings: (Figure(s) 1-3); and
- 8. Two (2) return postcards.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg

Attorney for Applicants

Registration No. 43,447

JDE/mmb SKGF_DC1:161659.1

Sterne, Kessler, Goldstein & Fox P.L.C.: 1100 New York Avenue, NW: Washington, DC 20005: 202.371.2600 f 202.371.2540: www.skgf.com

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

FEE TRANSMITTAL for FY 2003 Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)916.00

C

Ø

Complete if Known								
Application Number	To be assigned							
Filing Date	Herewith on July 30, 2003							
First Named Inventor	Pradeep K. G vil							
Examiner Name	To be assigned							
Art Unit	To be assigned							
Attorney Docket No.	1857.1860000							

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)							
☐ Check ☐ Credit card ☐ Money Order ☐ Other** ☐ None ** Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.		3. ADDITIONAL FEES						
		Large Entity Small Entity						
Deposit Account Deposit Account Number 19-0036	Fee Code	Fee Fee (\$) Co			Fee Description		Fee Paid	
Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.c.	1051	130	2051	65	Surcharge - late filing fe	ee or oath		
The Commissioner is authorized to: (check all that apply)	1502	50	2052	25	Surcharge-late provision	nal filing fee or cover		
☐ Charge fee(s) indicated below ☐ Credit any over payments	1053	130	1053	130	sheet Non-English specification			
Charge any additional fee(s) during the pendency of this	1812	2,520	1812	2,520			 	
application	1804	920*	1804	920*		of SIR prior to Examiner		
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.			1		action			
above-identined deposit account.	1805	1,840*	1805	1,840*	Requesting publication action	of SIR after Examiner	. *	
	1251	110	2251	55	Extension for reply with	nin first month		
	1252	410	2252	205	Extension for reply with	nin second month		
FEE CALCULATION	1253	930	2253	465.	Extension for reply with	nin third month		
1. BASIC FILING FEE	1254	1,450	2254	725	Extension for reply with	in fourth month		
Large Entity Small Entity	1255	1,970	2255	985	Extension for reply with	nin fifth month		
Fee Fee Fee Fee Description Fee Paid	1401	320	2401	160	Notice of Appeal			
Code (\$) Code (\$) 1001 750 2001 375 Utility filing fee 750.00	1402	320	2402	160	Filing a brief in support	of an appeal		
1001 750 2001 375 Utility filing fee <u>750.00</u>	1403	280	2403	140	Request for oral hearin	g		
1003 520 2003 260 Plant filing fee	1451	1,510	1451	1,510	Petition to institute a pu	ublic use proceeding		
1004 750 2004 375 Reissue filing fee	1452	110	2452	55	Petition to revive - una	voidable	 	
1105 160 2005 80 Provisional filing fee	1453	٠.	2453		Petition to revive - unin			
	1501	1,300	2501	650	Utility issue fee (or reis		 	
SUBTOTAL (1) (\$) 750.00	1502		2502	235	Design issue fee	306)		
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from	1502	470	2302	239	Design issue ree			
Extra below Fee Paid	1503	630	2503	315	Plant issue fee	•		
Total Claims <u>27</u> - 20** = <u>7</u> X <u>18</u> = .126.00	1460	130	1460	130	Petitions to the Commi	ssioner		
Indep. Claims 3 - 3** = 3 X 84 =	1807	50	1807	50	Processing fee under 3	37 CFR 1.17(a)	<u> </u>	
Multiple Dependent =								
Large Entity _i Small Entity	1806	180	1806	180	Submission of Informat	tion Disclosure Stmt	1 1	
Fee Fee Fee Fee Fee Description Code (\$) Code (\$)	8021	40	8021	40	Recording each patent property (times number	assignment per	40.00	
1202 18 2202 9 Claims in excess of 20	1809	750	2809	375	Filing a submission after	er final rejection (37 CFR		
1201 84 2201 42 Independent claims in excess of 3	ł		l	975	1.129(a))			
1203 280 2203 140 Multiple dependent claim, if not paid	1810	750	2810	375	For each additional inv (37 CFR 1.129(b))	ention to be examined		
1204 84 2204 42 **Reissue independent claims over original patent	1801	750	2801	375	Request for Continued	Examination (RCE)		
1205 18 2205 9 **Reissue claims in excess of 20	1802	900	1802	900	Request for expedited	examination of a design		
and over original patent		application						
SUBTOTAL (2) (\$)126.00		fee (spe	сіту) _		 			
**or number previously paid, if greater; For Reissue, see above	* Red	luced by	Basic	Filing F	ee Paid	SUBTOTAL (3) (\$) <u>4(</u>	0.00	
SUBMITTED BY	_					Complete (if applicable)		
Name (Print/Type) Jason (P Eisenberg		Registration No. (Attorney/Agent)			43,447	Telephone 202-371-2600		
Signature QM 46				 +	"	Date 7/30	0/03	
WARNING: Information on this form ma	v becom	e public.	Credit o	card info	ormation should not		t	

WARNING: Information of this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed form to the USPTO. Time will vary to suppose the individual case. Any comments on the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and the individual case. Any comments on the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information of time you require the complete his formation of the complete his formation.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Pradeep K. Govil

Appl. No. To be assigned

Filed: Herewith on July 30, 2003

For:

Deformable Mirror Using

Piezoelectric Actuators Formed as an Integrated Circuit and Method

of Use

Confirmation No. To be assigned

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 1857.1860000

Authorization to Treat a Reply as Incorporating an Extension of Time under 37 C.F.R. § 1.136(a)(3)

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply.

Respectfully submitted,

Jason D. Eisenberg Attorney for Applicant Registration No. 43,447

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Date:

SKGF DC1:161667.1

7/30/03

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600 JDE/mmb